



Cathedral Energy Services
Cathedral Energy Services
1949 Pryite Rd
Casper Wy 82604

125203

5"-100' - MD

3/10/2012 2:47:17 PM

Oper. Company: Encan Oil & Gas

Country: USA

State / Province: Colorado

County / Parish: Weld

API/UWI: 051233436900

Field: DJ Wattenberg

Well: Grattan 4A-30H

Rig: Ensign 135

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not except in the case of gross or willful negligence on our part, be liable or responsible for any loss, cost damages or expenses incurred or sustained by anyone resulting from an interpretation made by any of our officers, agents, or employees.

MD	0.00	GR(API)	300.00	Surveys (MD/INC/AZ)	MD	0.00	ROP(FT/HR)	300.00
FT					FT			
1,180				MD: 1180.00 INC: 0.50 AZ: 327.10	1,180			
1,190					1,190			
1,200					1,200			
1,210					1,210			
1,220					1,220			
1,230					1,230			
1,240					1,240			
1,250					1,250			
1,260					1,260			
1,270					1,270			
1,280				MD: 1272.00 INC: 0.60 AZ: 293.40	1,280			
1,290					1,290			
1,300					1,300			
1,310					1,310			
0					0			

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[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

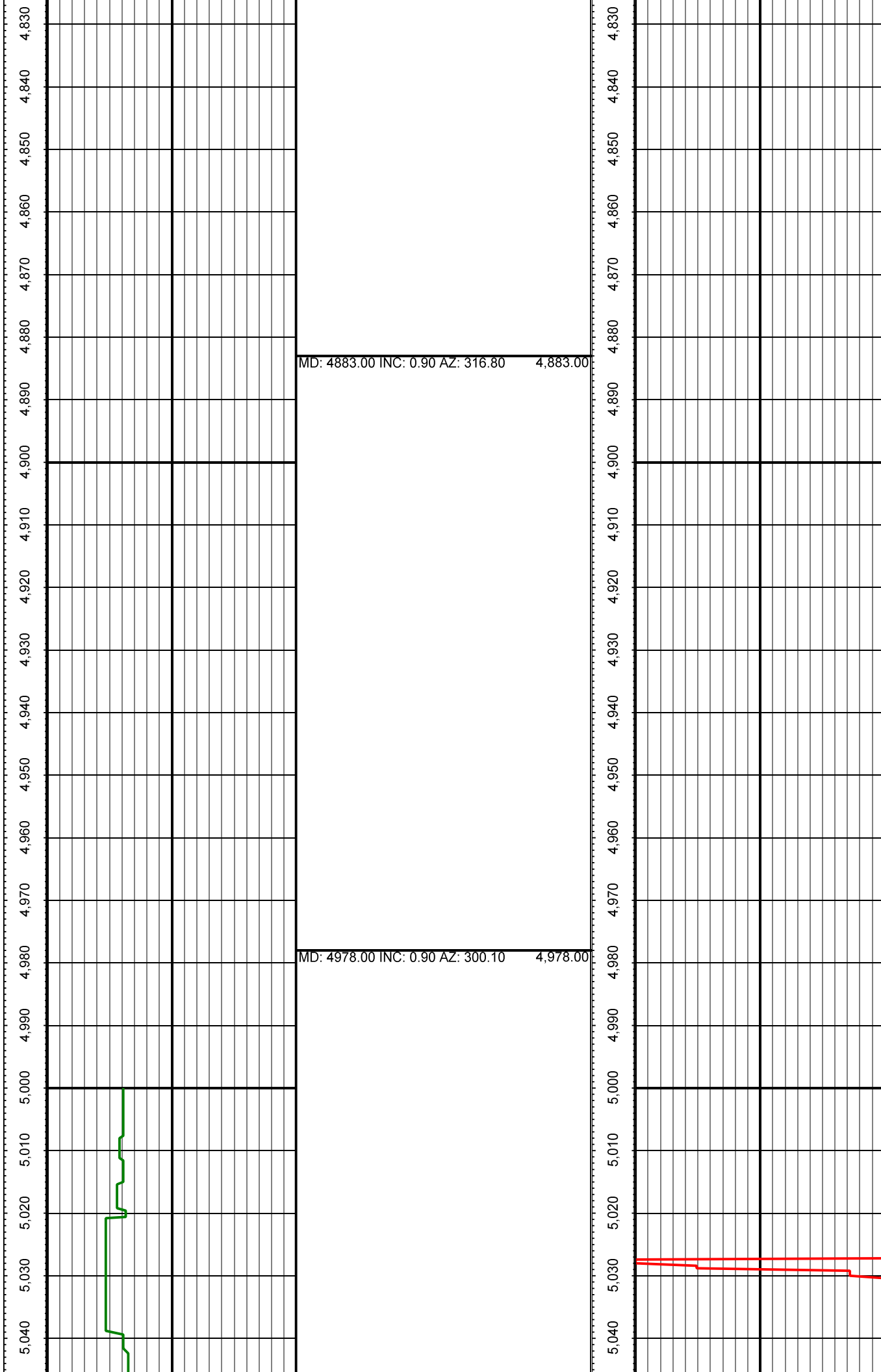
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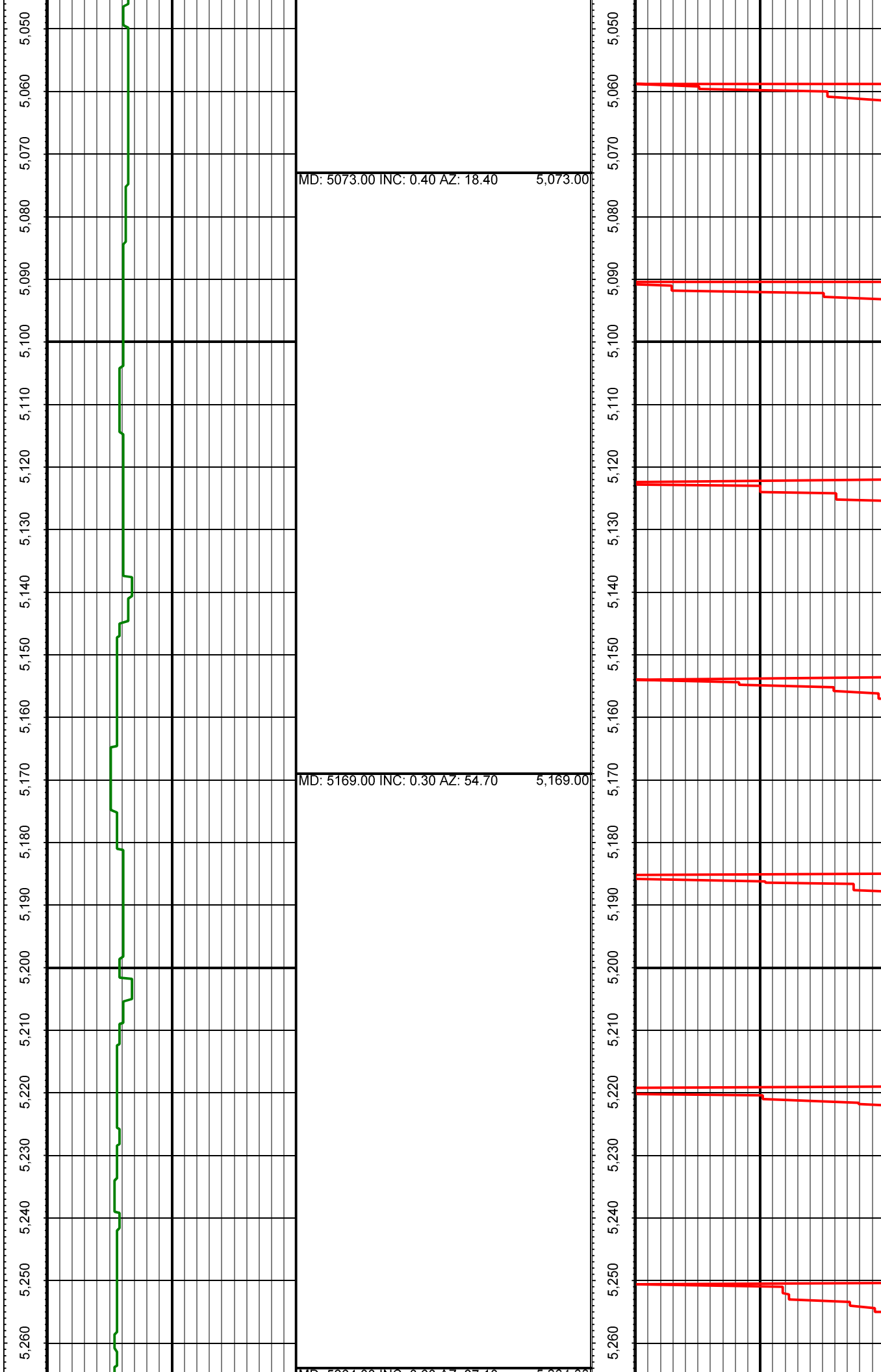
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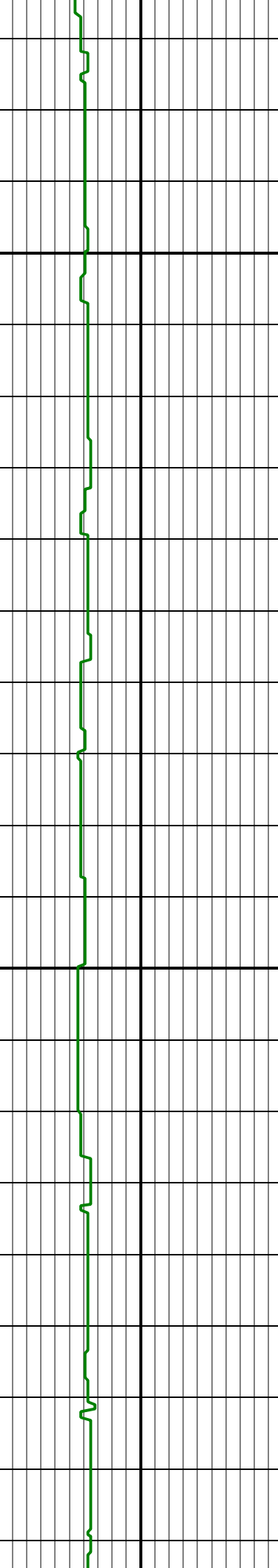
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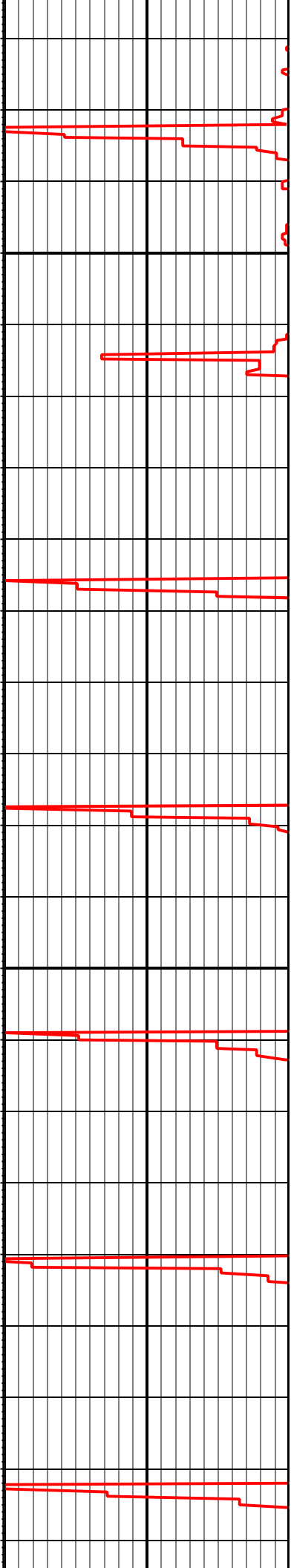
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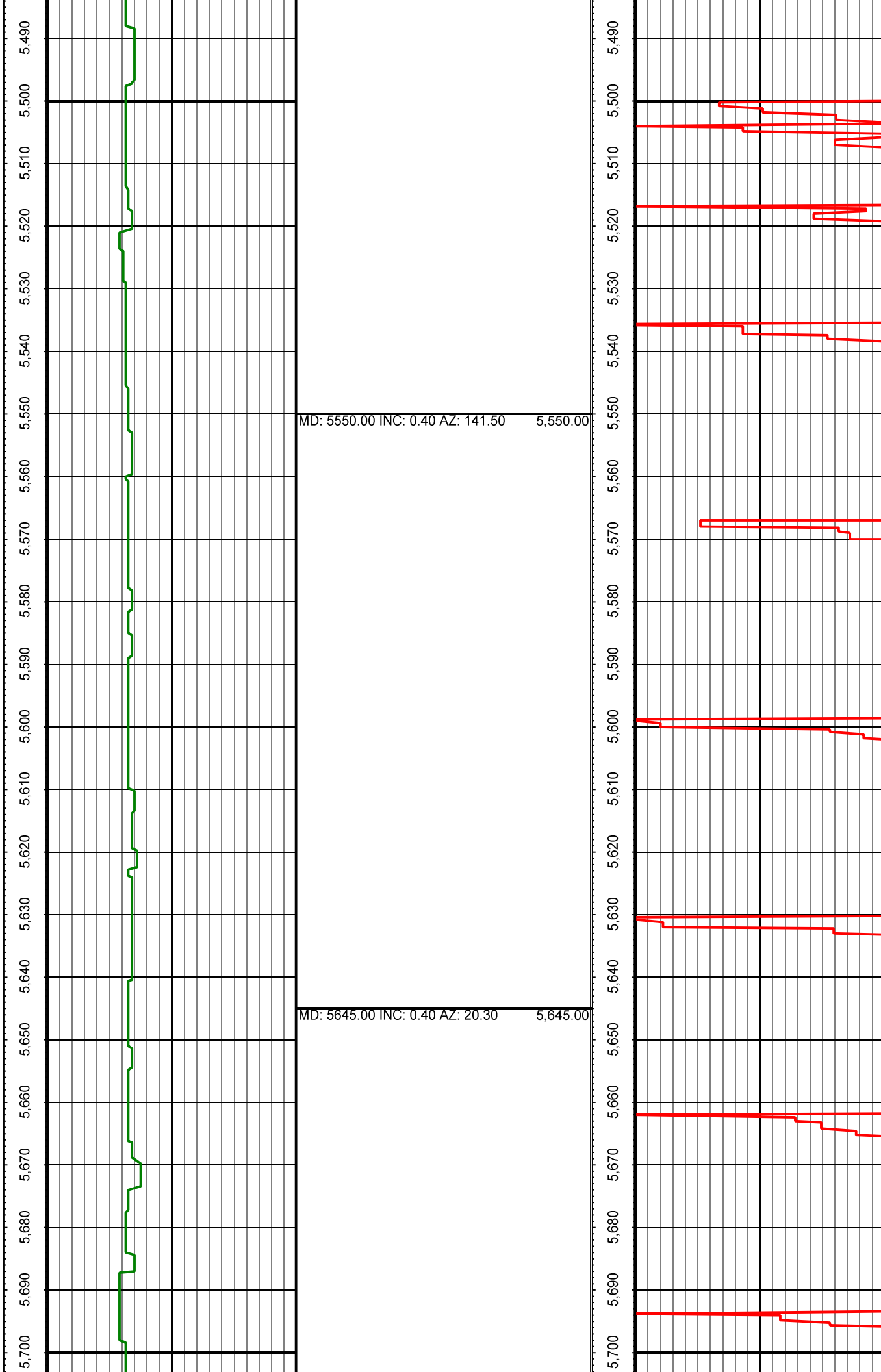
5,270 5,280 5,290 5,300 5,310 5,320 5,330 5,340 5,350 5,360 5,370 5,380 5,390 5,400 5,410 5,420 5,430 5,440 5,450 5,460 5,470 5,480

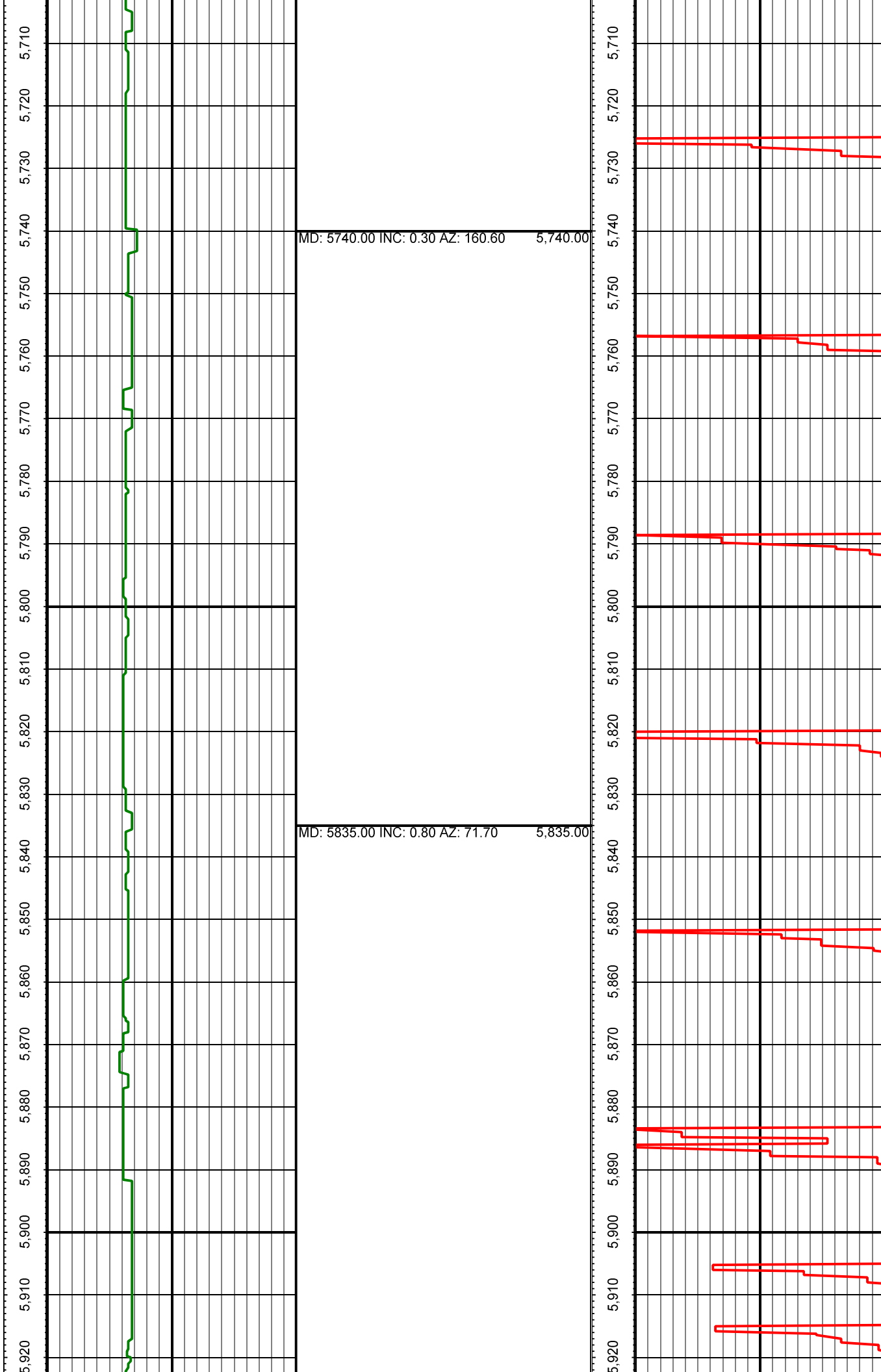


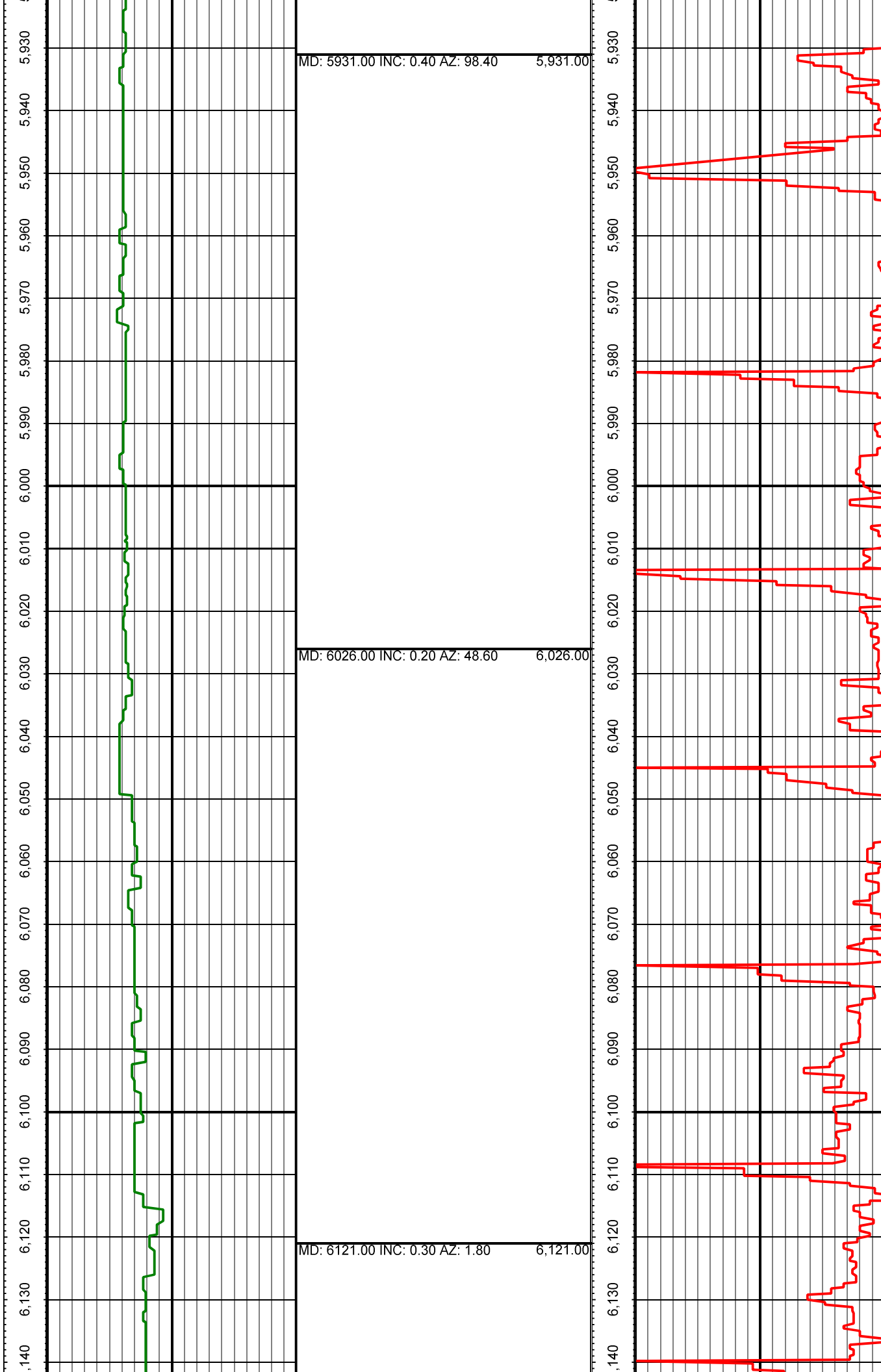
MD: 5359.00 INC: 0.30 AZ: 182.50 5,359.00

5,270 5,280 5,290 5,300 5,310 5,320 5,330 5,340 5,350 5,360 5,370 5,380 5,390 5,400 5,410 5,420 5,430 5,440 5,450 5,460 5,470 5,480







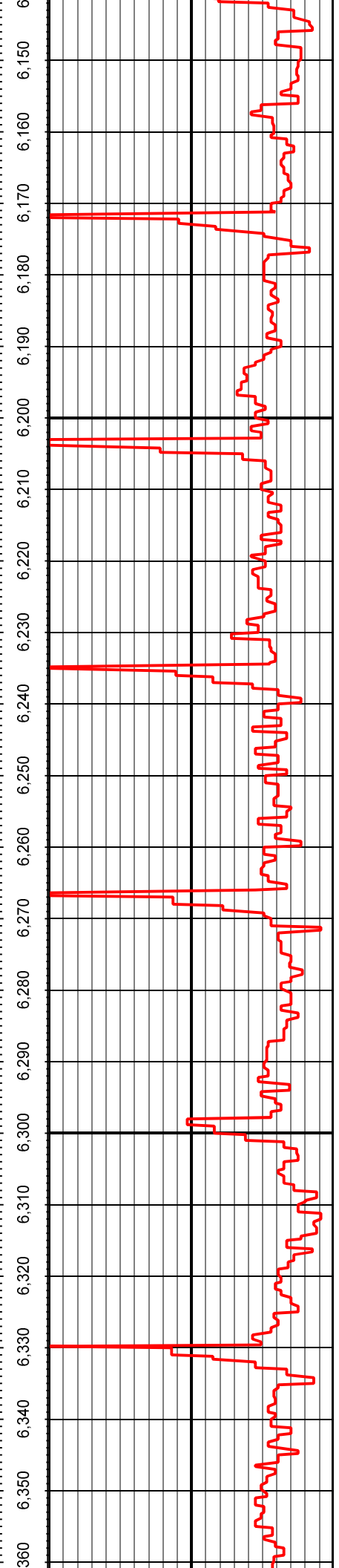


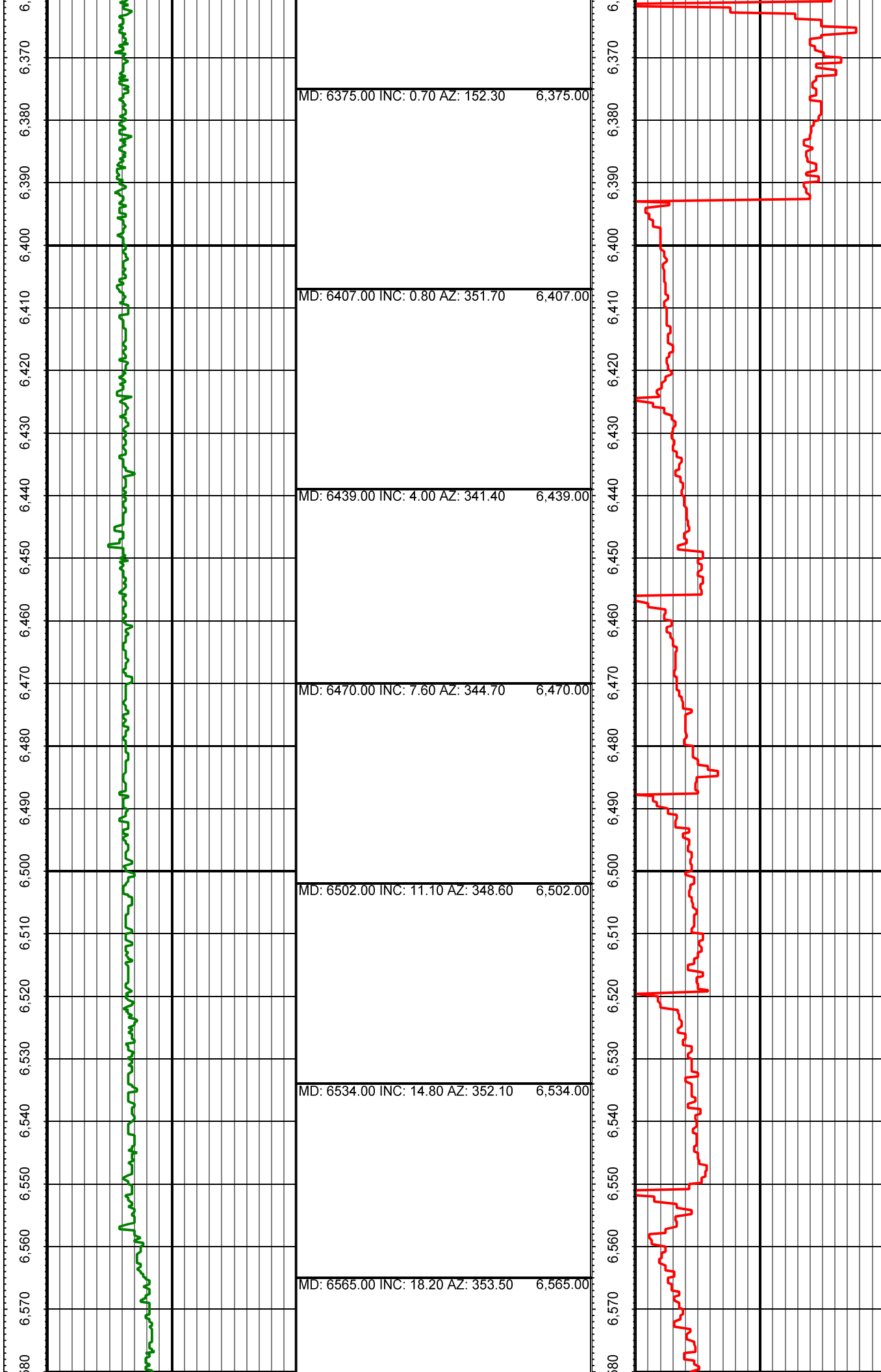


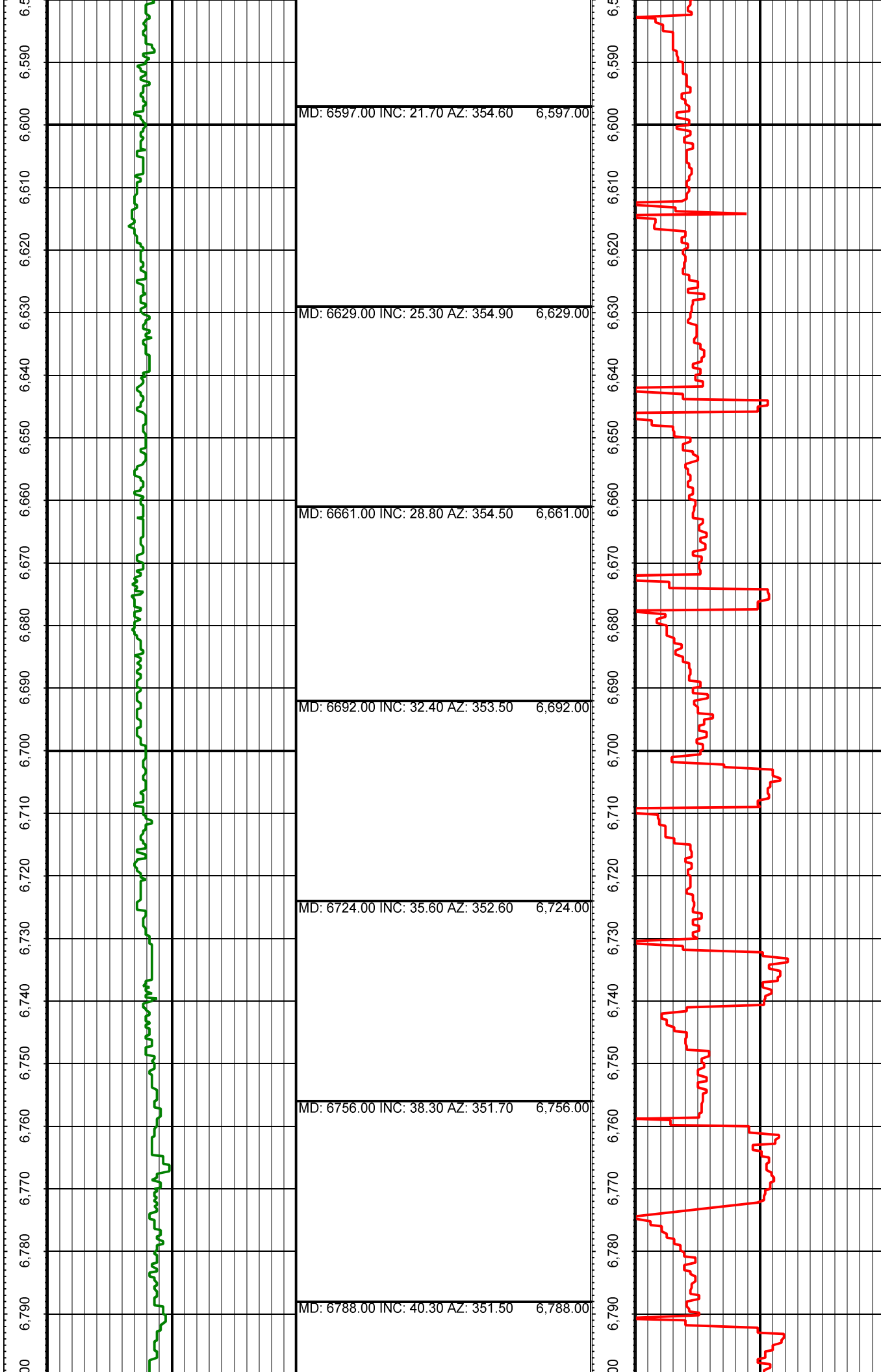
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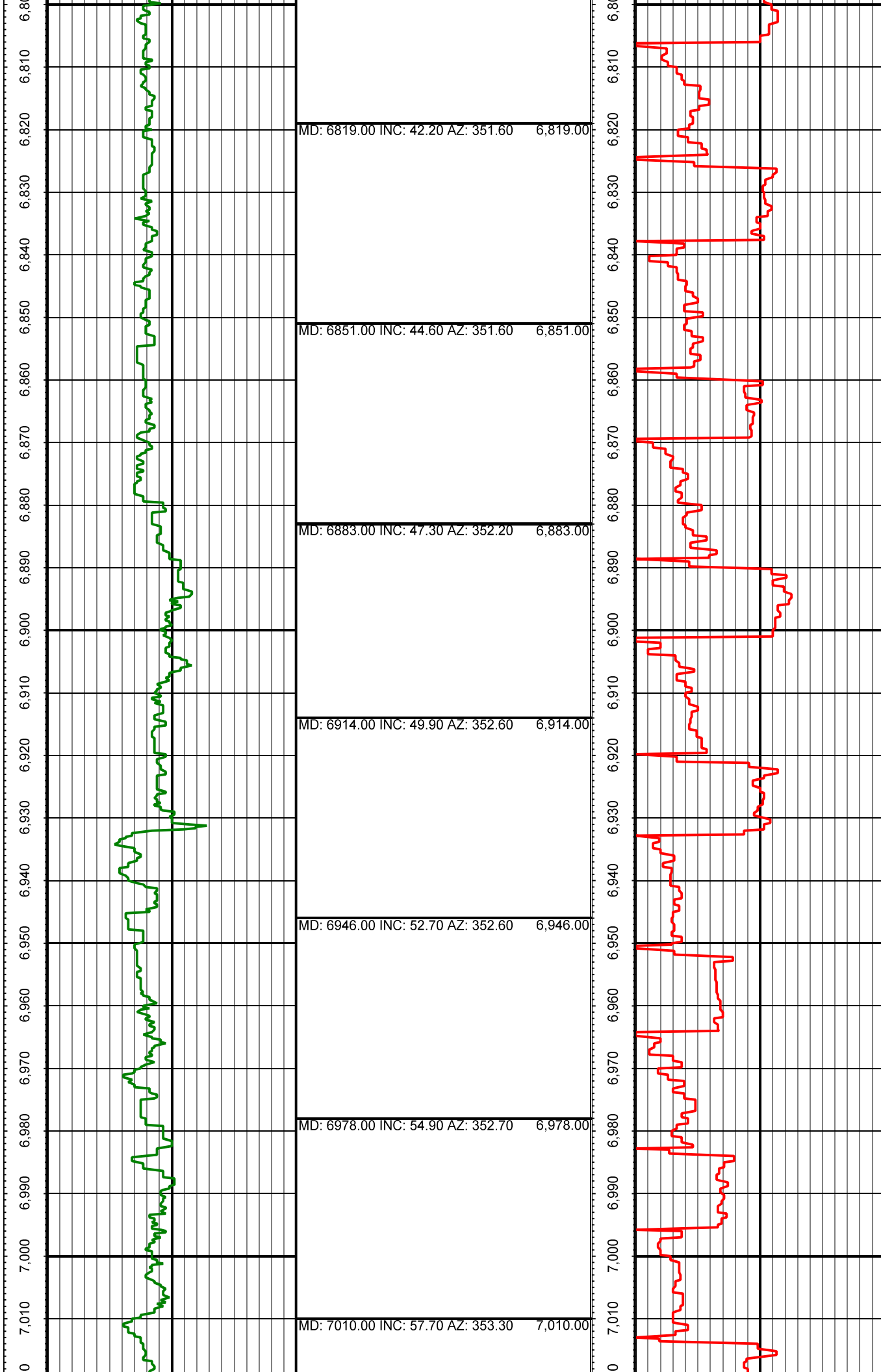
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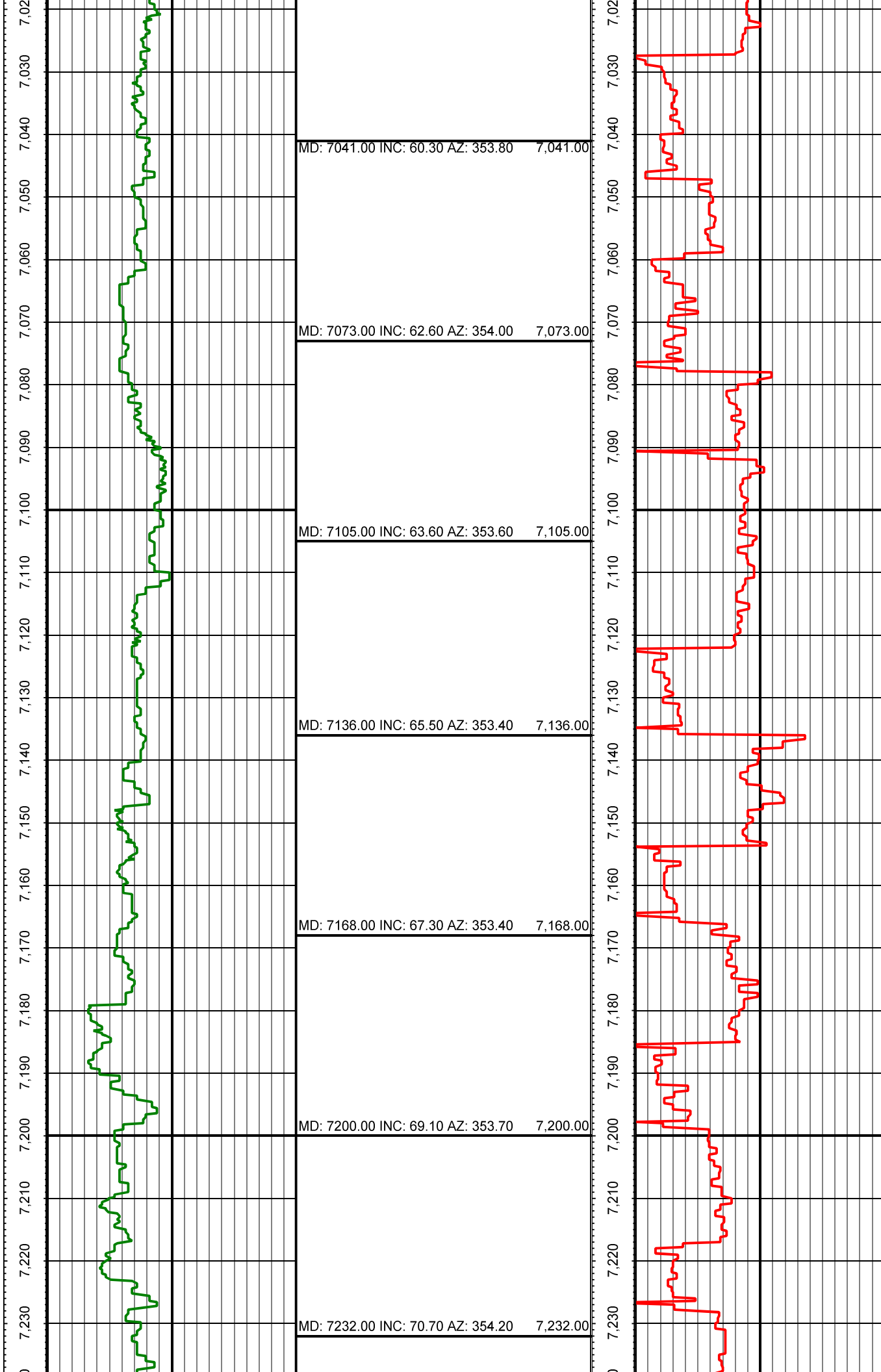
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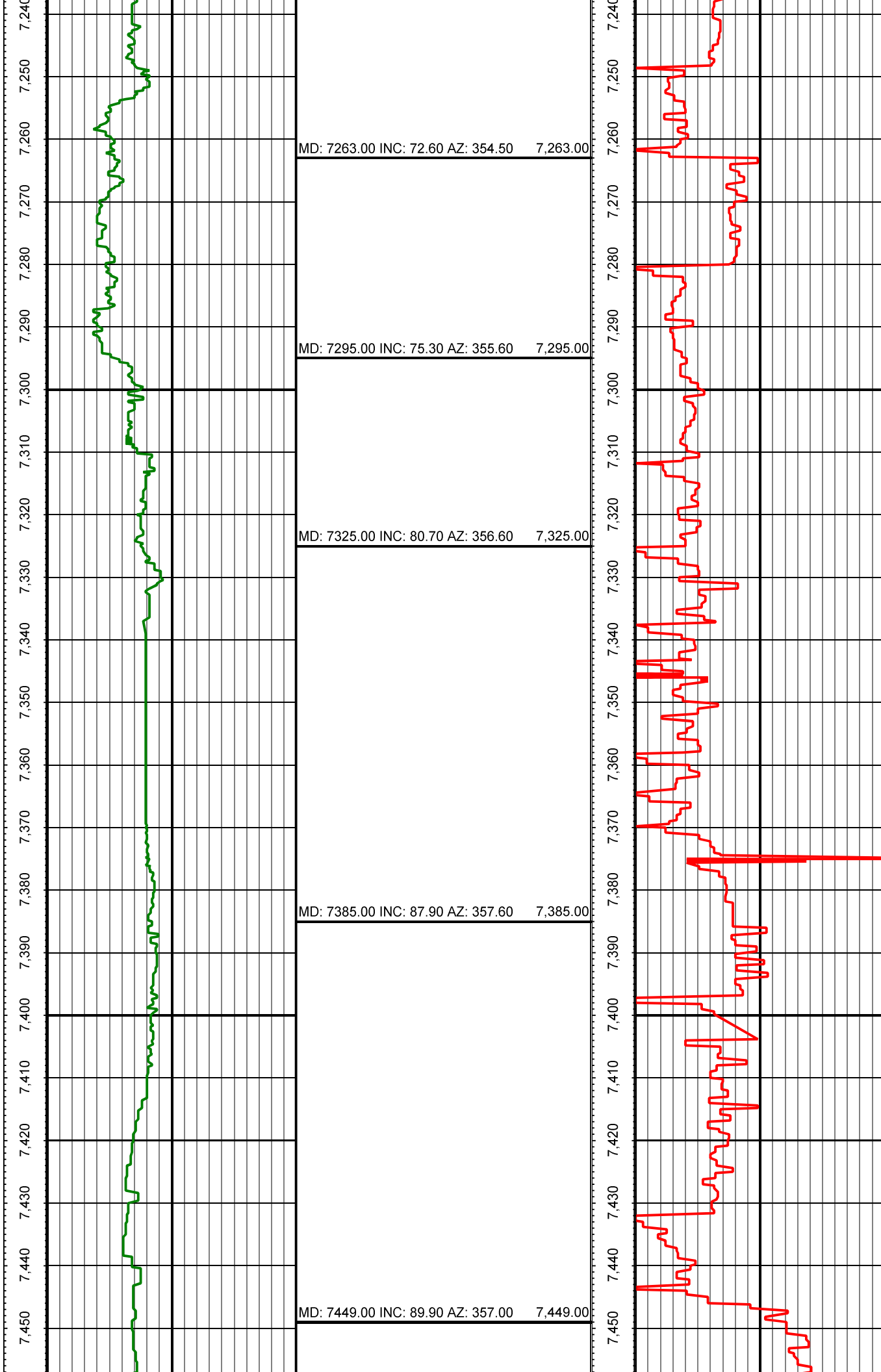


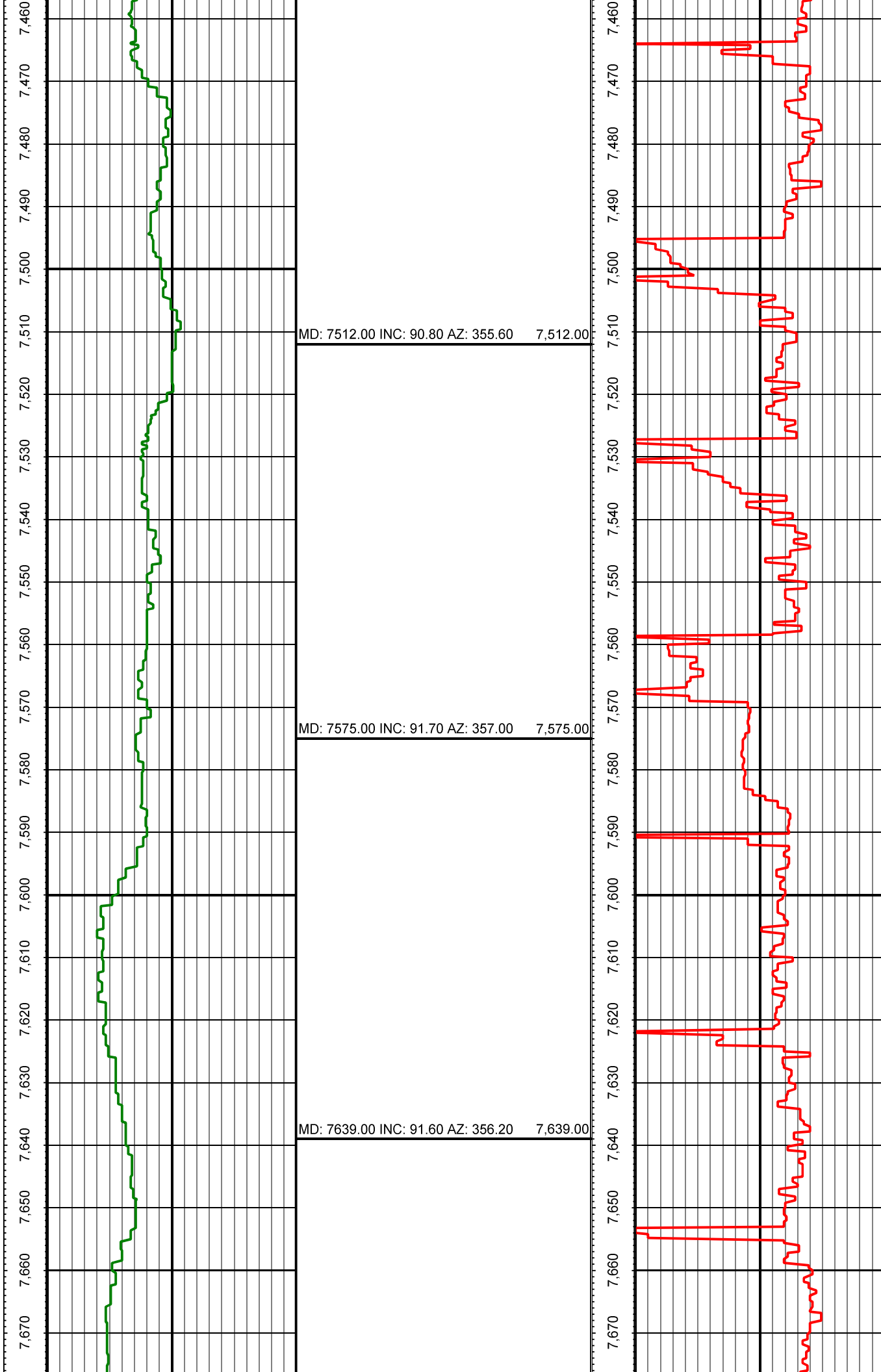


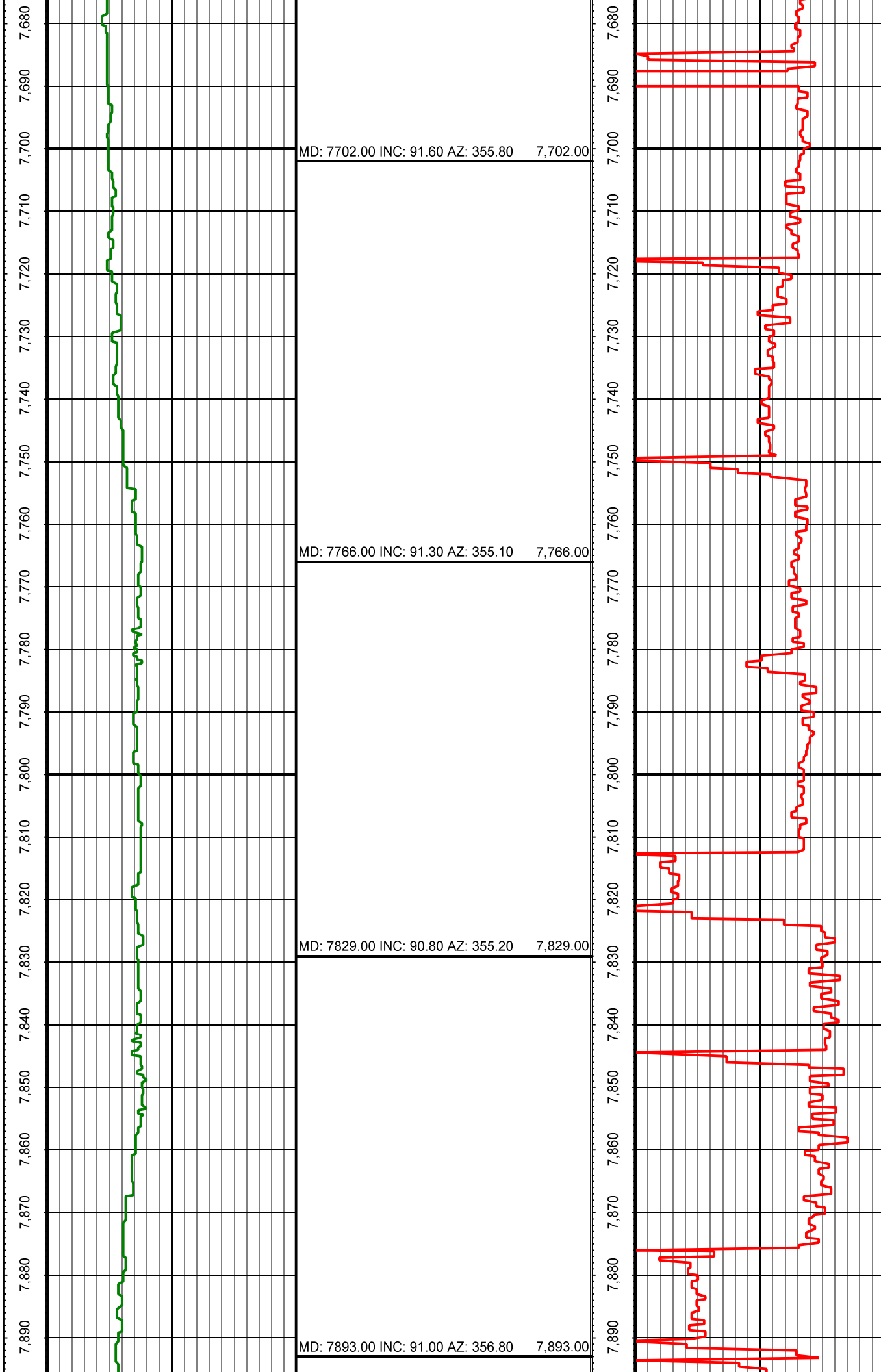




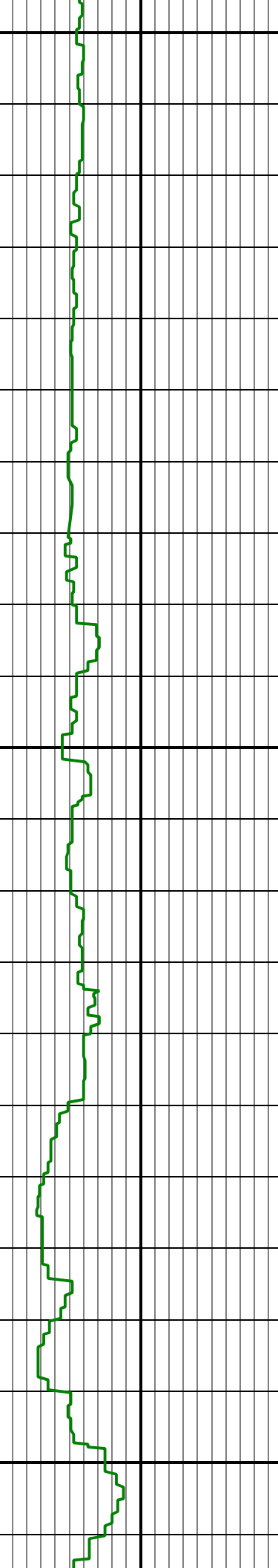








8,110 8,100 8,090 8,080 8,070 8,060 8,050 8,040 8,030 8,020 8,010 8,000 7,990 7,980 7,970 7,960 7,950 7,940 7,930 7,920 7,910 7,900

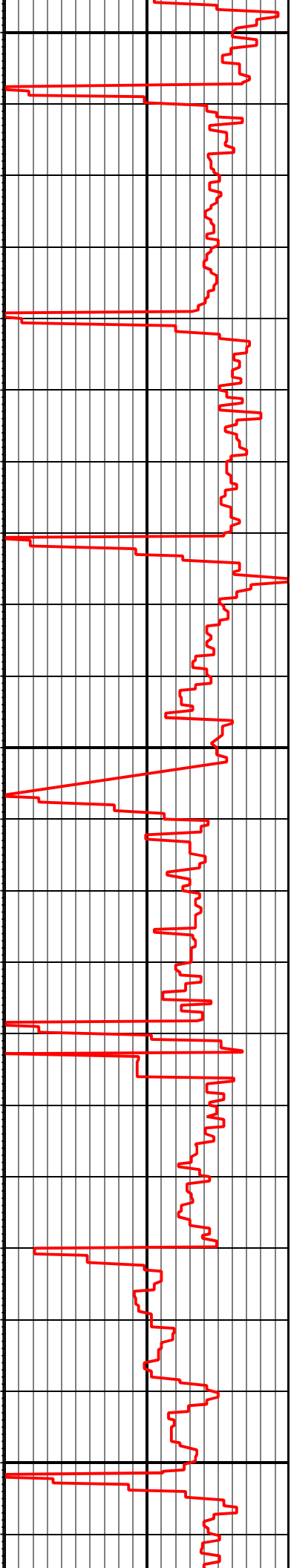


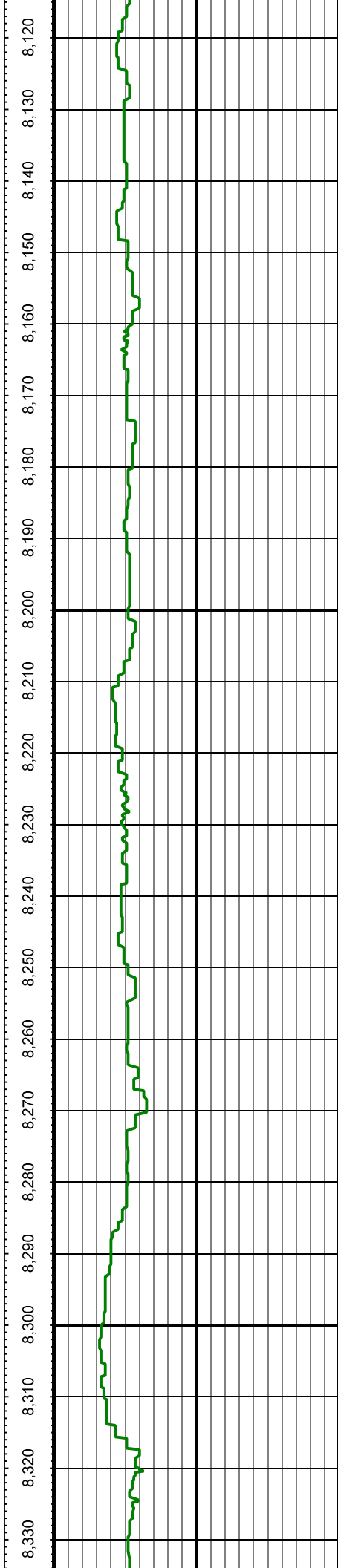
MD: 7956.00 INC: 90.90 AZ: 356.80 7,956.00

MD: 8020.00 INC: 90.80 AZ: 356.40 8,020.00

MD: 8083.00 INC: 90.50 AZ: 355.80 8,083.00

8,110 8,100 8,090 8,080 8,070 8,060 8,050 8,040 8,030 8,020 8,010 8,000 7,990 7,980 7,970 7,960 7,950 7,940 7,930 7,920 7,910 7,900

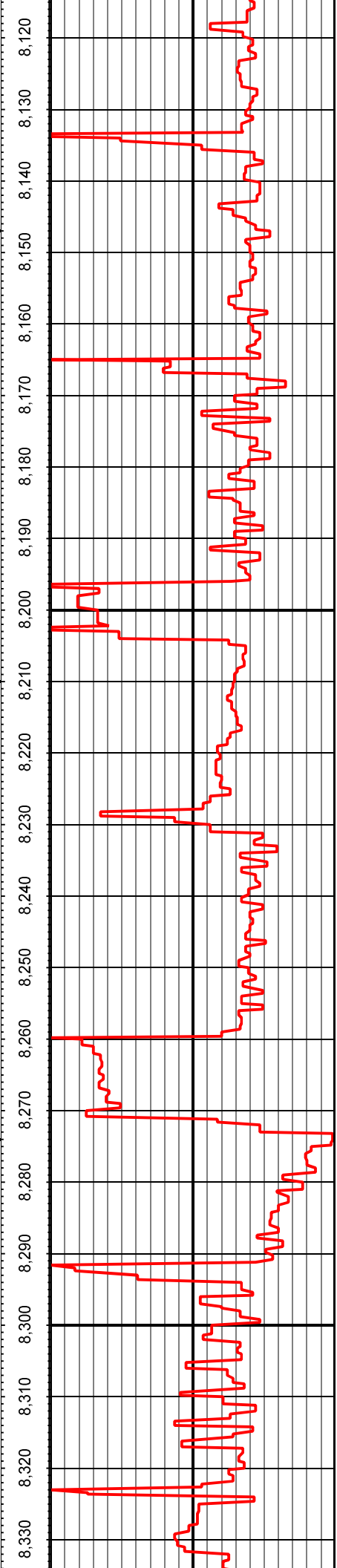


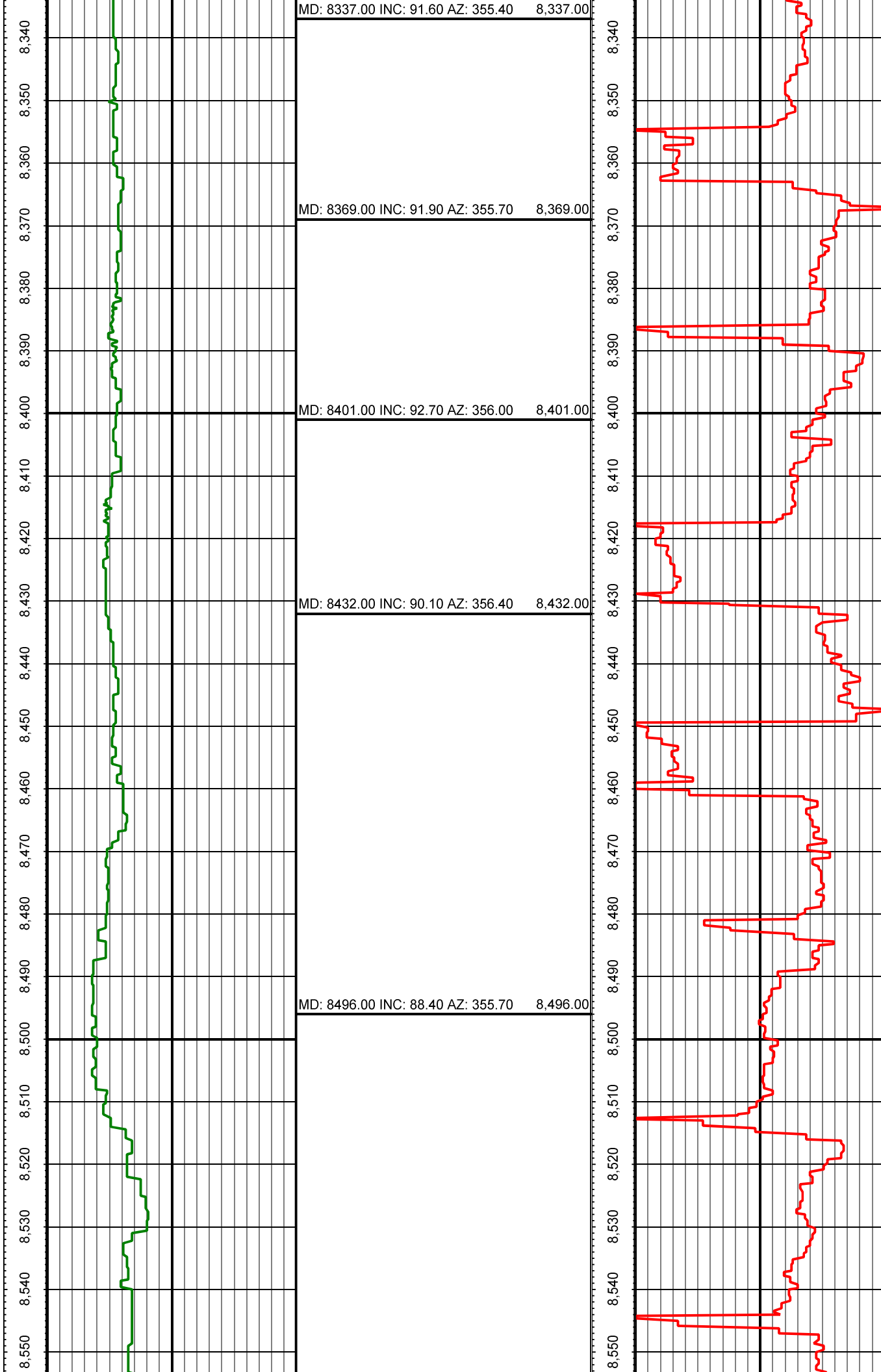


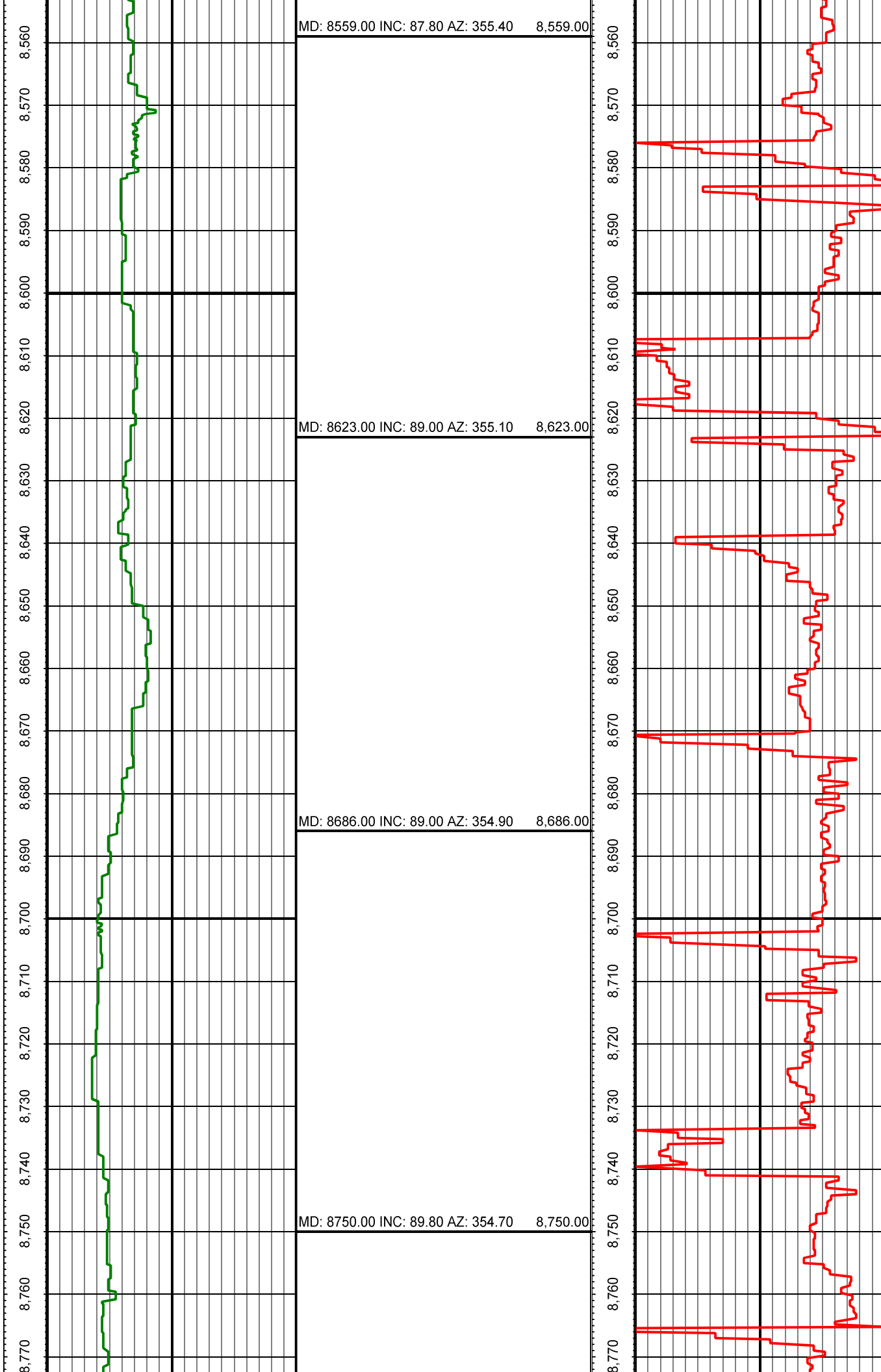
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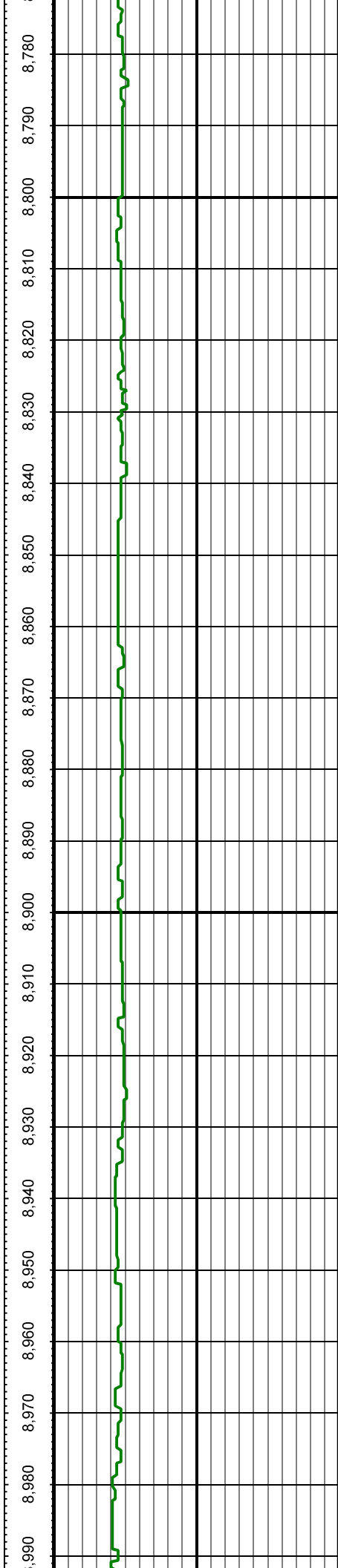
MD: 8210.00 INC: 89.60 AZ: 355.00 8,210.00

MD: 8274.00 INC: 90.90 AZ: 355.40 8,274.00





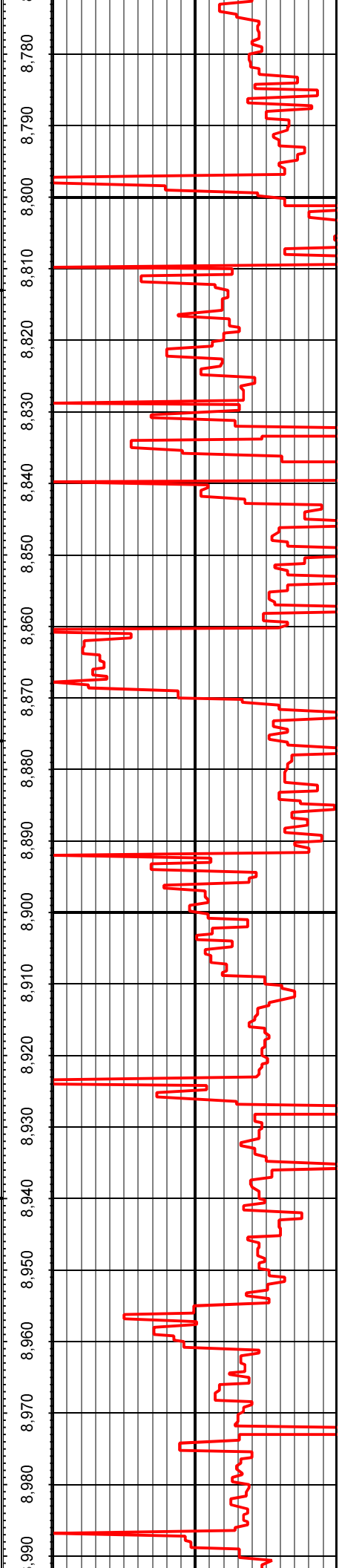


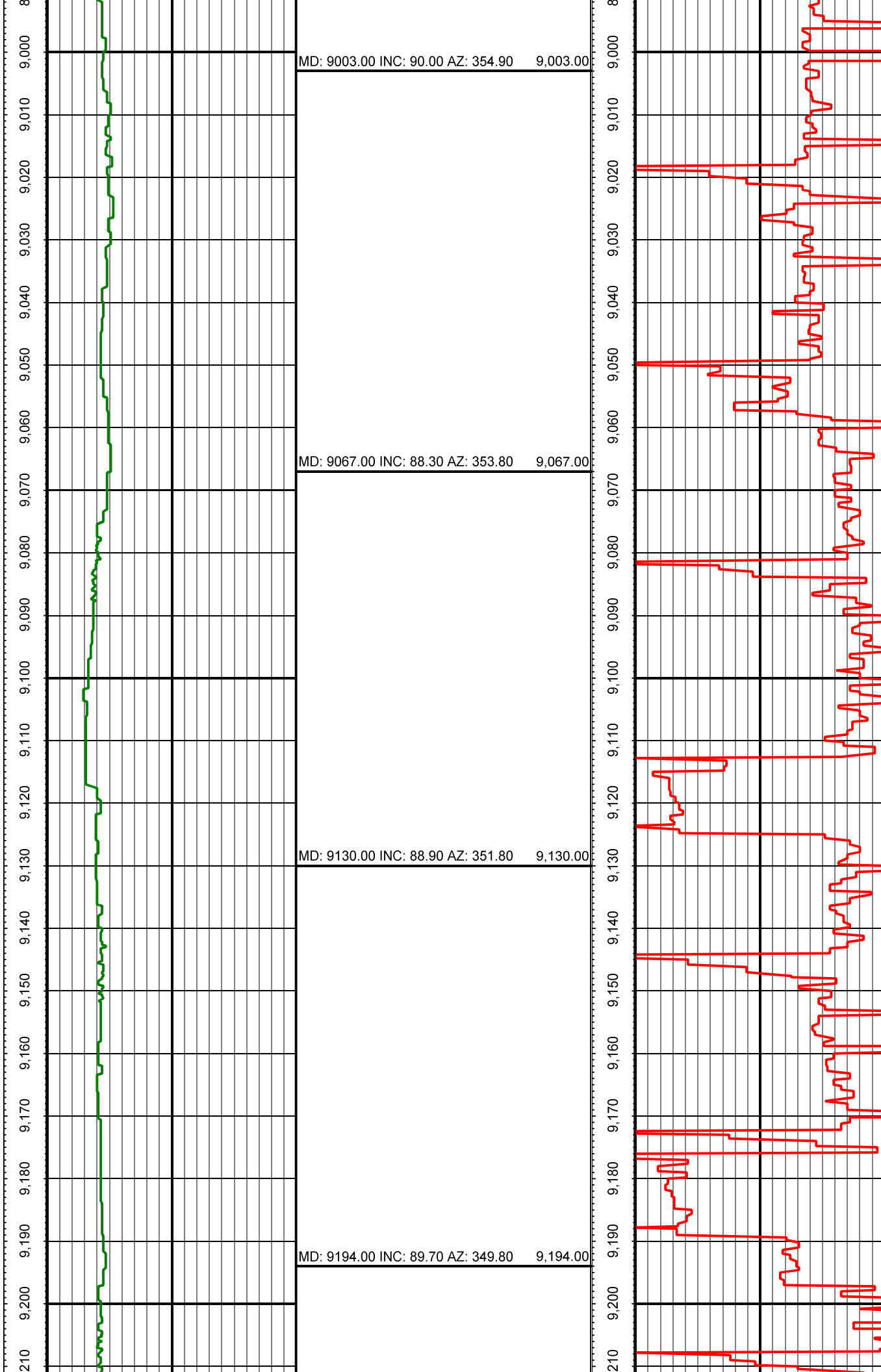


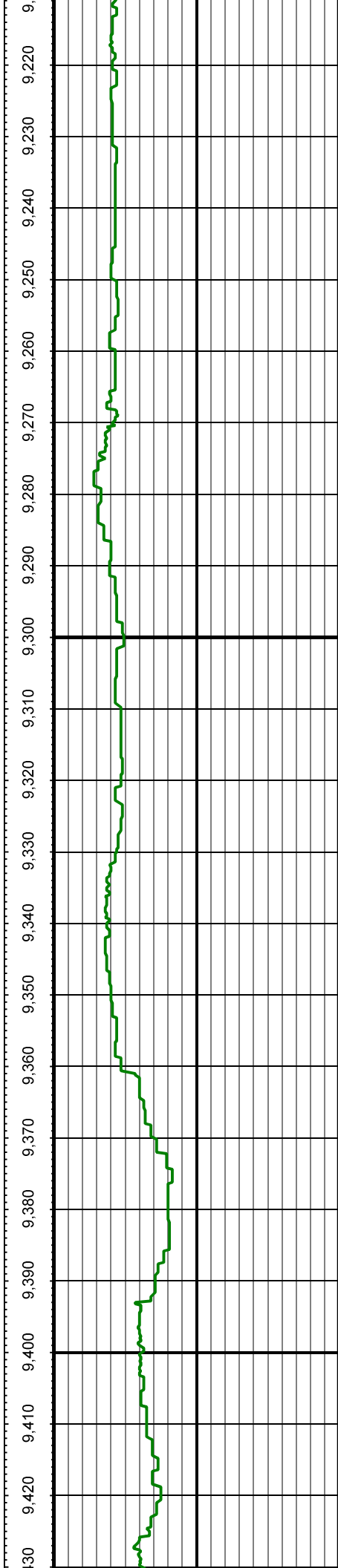
MD: 8813.00 INC: 90.90 AZ: 354.90 8,813.00

MD: 8876.00 INC: 89.80 AZ: 355.20 8,876.00

MD: 8940.00 INC: 89.50 AZ: 354.40 8,940.00







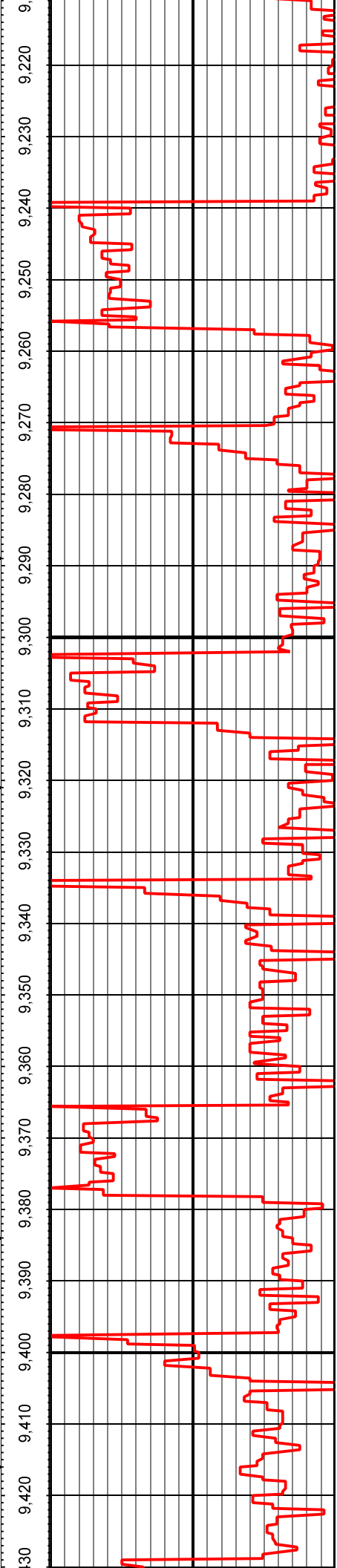
MD: 9257.00 INC: 91.90 AZ: 348.10 9,257.00

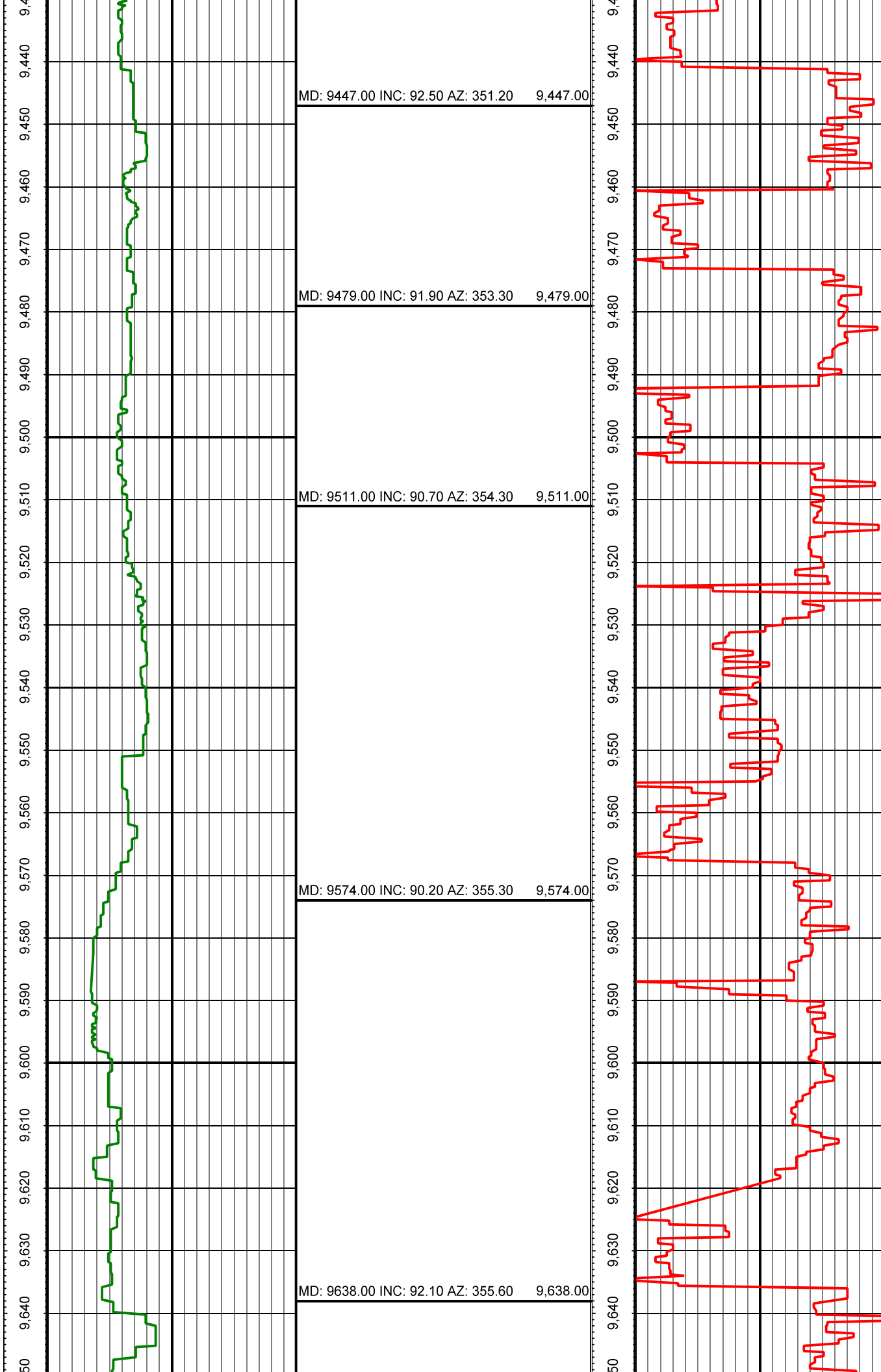
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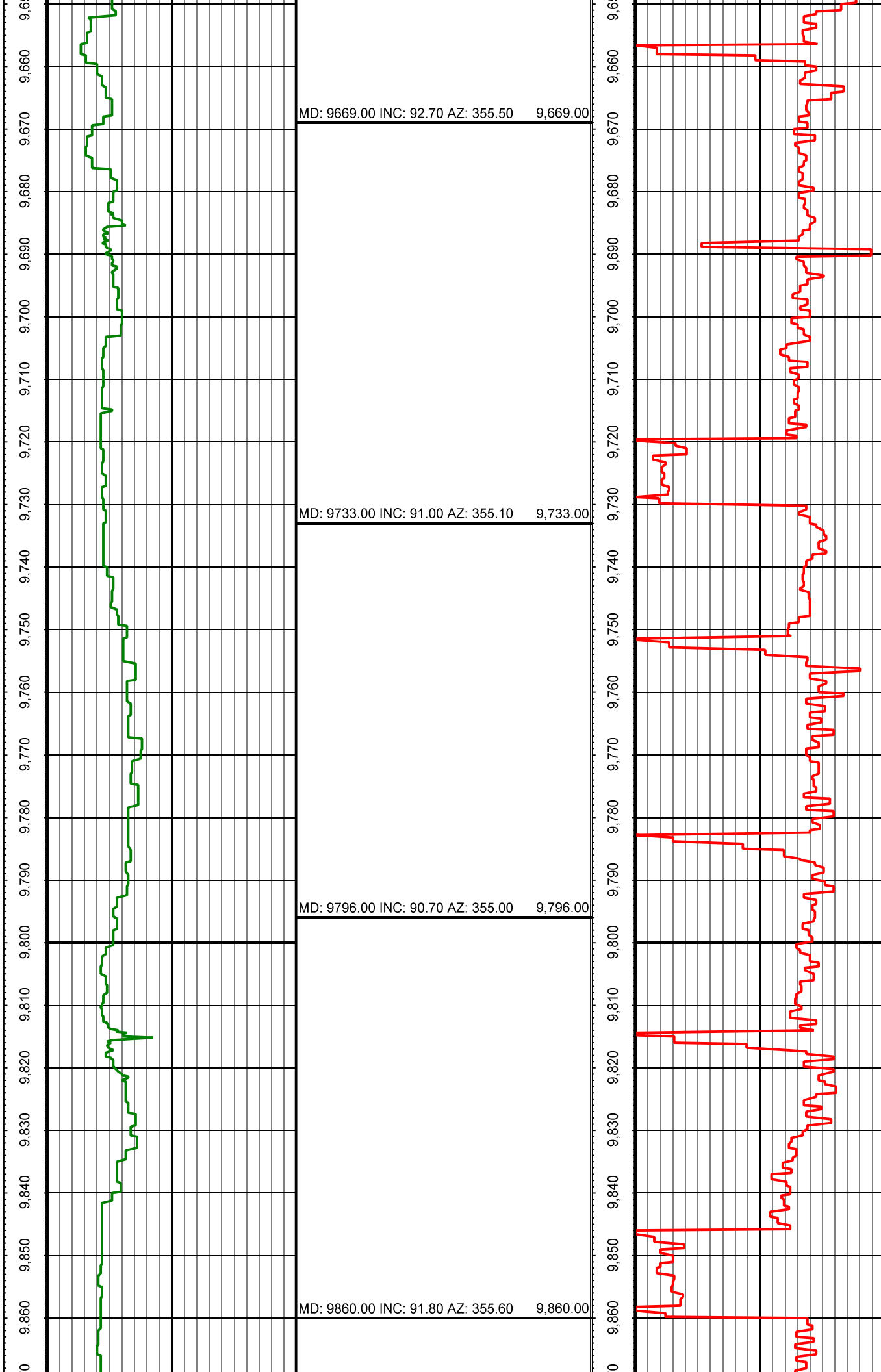
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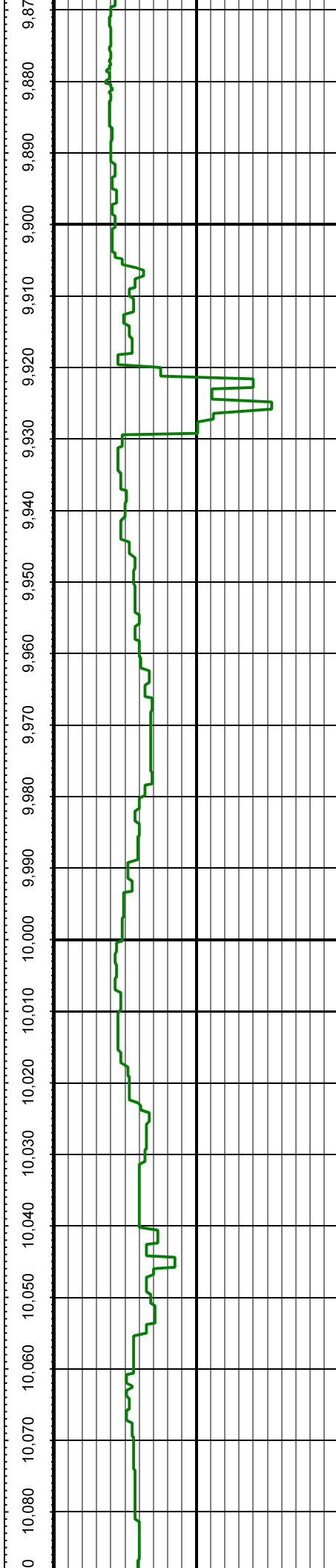
MD: 9384.00 INC: 92.00 AZ: 349.40 9,384.00

MD: 9416.00 INC: 92.40 AZ: 349.80 9,416.00





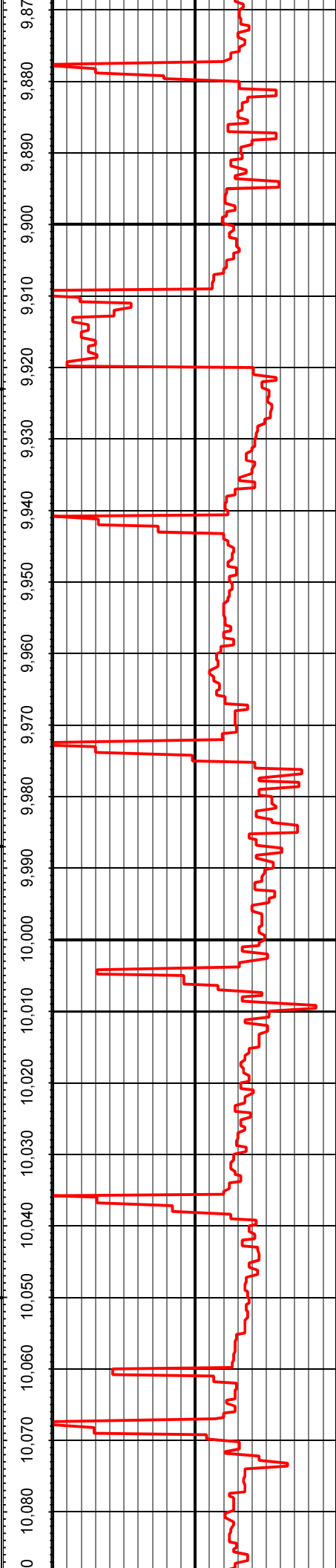


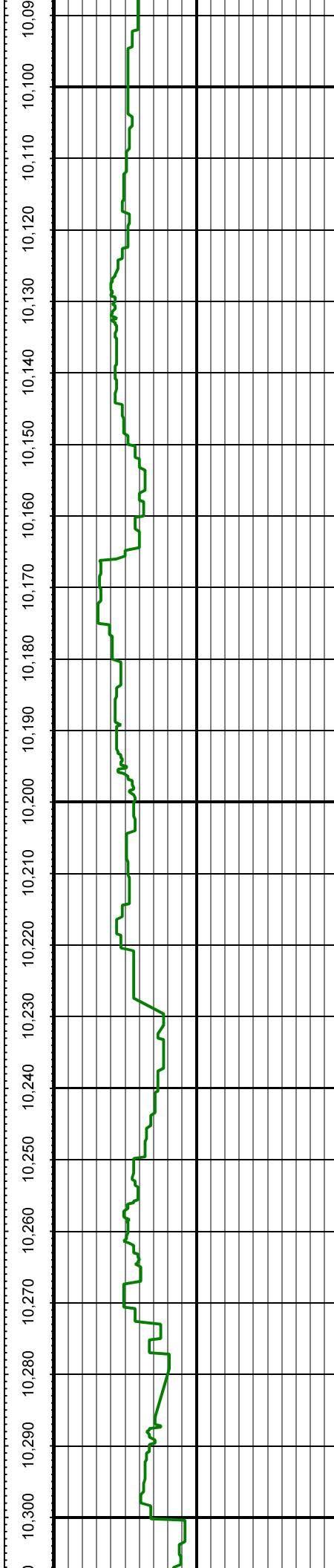


MD: 9923.00 INC: 92.40 AZ: 356.90 9,923.00

MD: 9987.00 INC: 92.90 AZ: 356.70 9,987.00

MD: 10050.00 INC: 93.20 AZ: 356.30 10,050.00



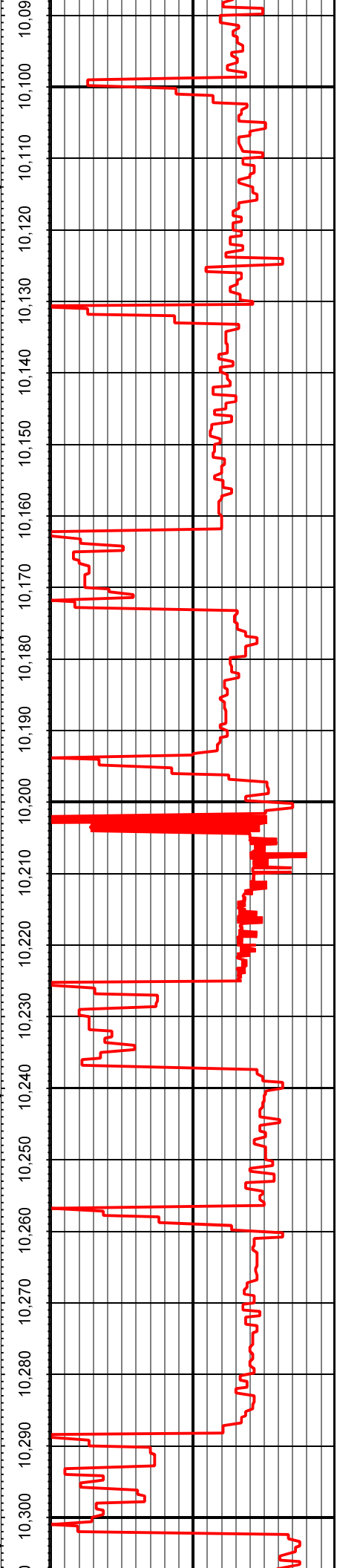


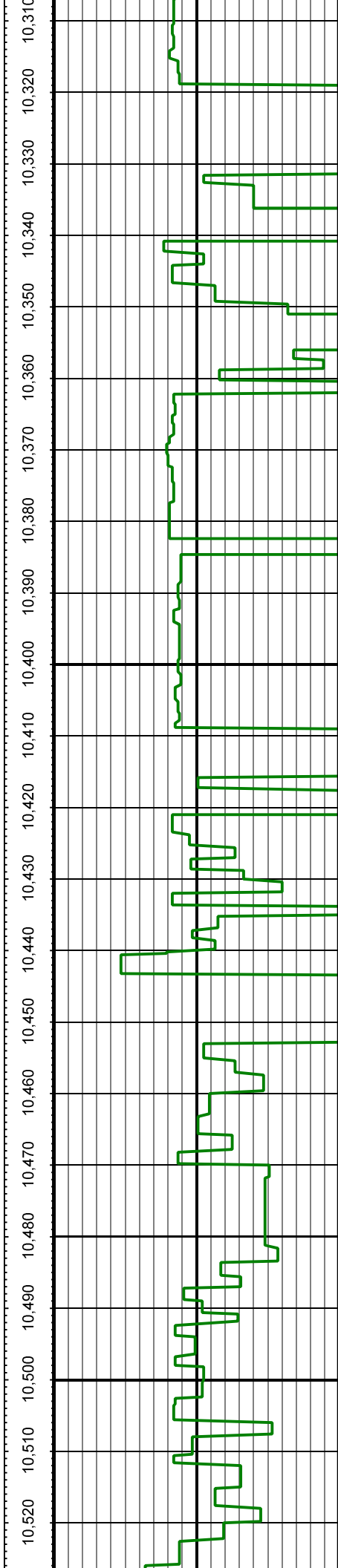
MD: 10114.00 INC: 93.70 AZ: 356.20 10,114.00

MD: 10177.00 INC: 93.60 AZ: 357.20 10,177.00

MD: 10241.00 INC: 93.20 AZ: 357.20 10,241.00

MD: 10304.00 INC: 92.40 AZ: 357.70 10,304.00

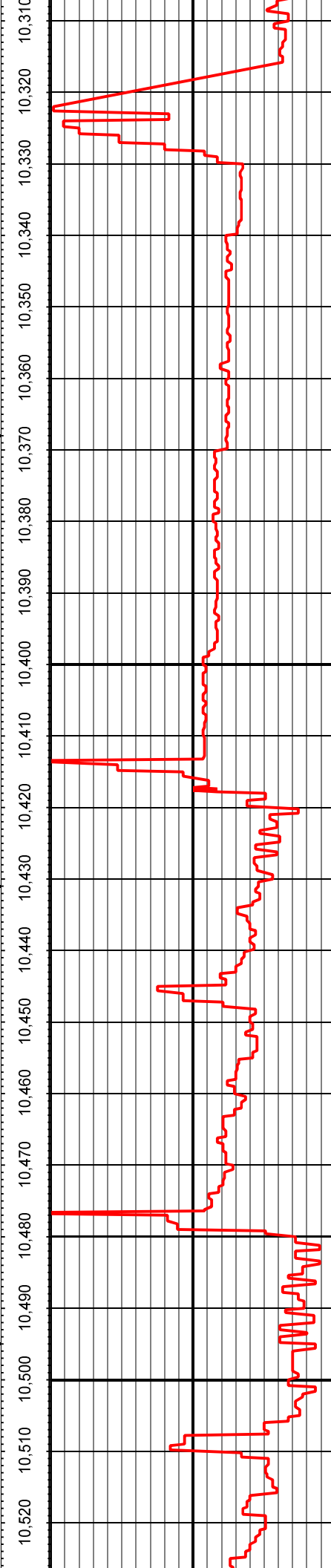


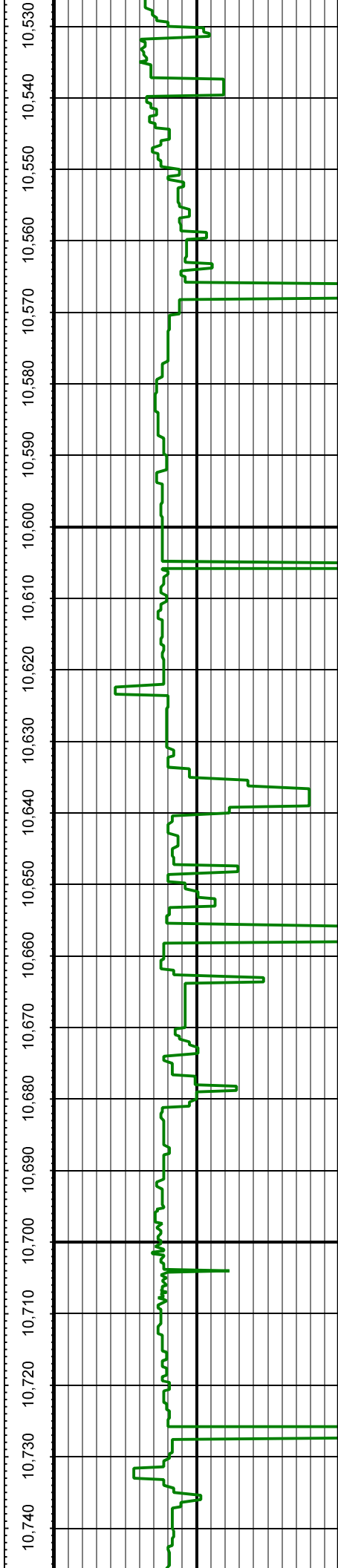


MD: 10368.00 INC: 92.60 AZ: 357.30 10,368.00

MD: 10431.00 INC: 92.00 AZ: 356.80 10,431.00

MD: 10495.00 INC: 91.60 AZ: 355.70 10,495.00





MD: 10558.00 INC: 91.40 AZ: 355.60 10,558.00

MD: 10622.00 INC: 91.50 AZ: 355.00 10,622.00

MD: 10685.00 INC: 91.20 AZ: 354.10 10,685.00

